



(19)

Europäisches Patentamt
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(11)

EP 1 024 318 A3

(12)

EUROPEAN PATENT APPLICATION

(88) Date of publication A3:
25.04.2001 Bulletin 2001/17

(51) Int Cl.: F16J 15/32

(43) Date of publication A2:
02.08.2000 Bulletin 2000/31

(21) Application number: 99119790.6

(22) Date of filing: 06.10.1999

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: 29.01.1999 US 117723 P

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(54) Reverse seal

(57) An improved dual lip radial shaft seal (200) is disclosed. The free end (36) of the dual lip seal (200) extends toward the air side (8) of the seal. Optionally, the dual lip seal has an oil side excluder lip seal (50), an

air side dust excluder lip seal (60), and an elastomeric static seal (24) extending from the elastomeric portion of the dual lip seal (100). A unitized seal version is also disclosed with two embodiments.

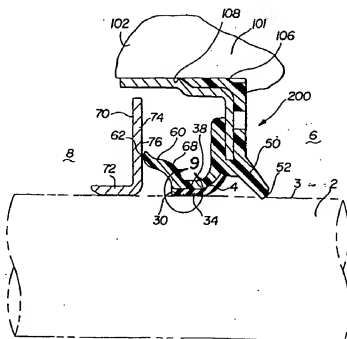


Fig-8

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EUROPEAN SEARCH REPORT

Application Number

EP 99 11 9790

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X	DE 42 43 828 A (BUSAK & LUYKEN GMBH & CO) 7 July 1994 (1994-07-07) * abstract * * figure 1 *	1	F16J15/32
X	US 4 886 281 A (EHRMANN PETER ET AL) 12 December 1989 (1989-12-12) * column 3, line 44 - column 4, line 2 * * figures 1-3 *	1	
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The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	
THE HAGUE		28 February 2001	
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CATEGORY OF CITED DOCUMENTS		T: theory or principle underlying the invention C: earlier patent document, but published on, or after the filing date D: document cited in the application L: document cited for other reasons & : member of the same patent family, corresponding document	
X: particularly relevant if taken alone Y: particularly relevant if combined with another document of the same category A: technological background O: non-written disclosure P: intermediate document			

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ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO.

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